



Modified PTO/SB/33 (10-05)

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Docket Number

Q78607

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450 Alexandria, VA 22313-1450

Application Number

10/729,951

Filed

December 9, 2003

First Named Inventor

Yuji SHIMOMURA

Art Unit

3683

Examiner

Melanie TORRES

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal

The review is requested for the reasons(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

☒ I am an attorney or agent of record.

Registration number 41,574



Signature

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Typed or printed name

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July 6, 2006

Date



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q78607

Yuji SHIMOMURA, et al.

Appln. No.: 10/729,951

Group Art Unit: 3683

Confirmation No.: 2703

Examiner: Melanie TORRES

Filed: December 9, 2003

For: ROLLING SLIDING MEMBER, PROCESS FOR THE PRODUCTION THEREOF AND  
ROLLING SLIDING UNIT

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**MAIL STOP AF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Pursuant to the new Pre-Appeal Brief Conference Pilot Program, and further to the Examiner's Final Office Action dated February 6, 2006, Applicant files this Pre-Appeal Brief Request for Review. This Request is also accompanied by the filing of a Notice of Appeal.

Applicant turns now to the rejections at issue:

**Claim Rejections - 35 U.S.C. § 103**

The Examiner rejected claims 1-12 under §103(a) as being unpatentable over US Patent 5,860,747 to Wan et al. (hereinafter Wan) in view of US Patent 5,630,668 to Ikezawa et al. (hereinafter Ikezawa). Applicants respectfully traverse this rejection because the references fail to teach or suggest all of the elements as set forth and arranged in the claims, and because the Examiner's interpretation of Wan is unreasonable.

First, for the reasons set forth in the Response filed November 17, 2005, the references fail to teach or suggest all of the elements as set forth and arranged in the claims.

By way of further explanation, although Ikezawa discloses an embodiment using a manganese phosphate film in column 12, lines 27-28, this embodiment is explained as an alternative to an embodiment in which surface roughness is reduced (see column 11, lines 62-63). That is, in Ikezawa, when the manganese phosphate is applied, an embodiment to reduce the surface roughness is not applied. In other words, Ikezawa disclose using the manganese phosphate film separately from using a surface of which surface roughness is low. Accordingly, one of ordinary skill in the art following the teachings of Ikezawa would not have been motivated to use both a manganese phosphate film and a reduced surface roughness, as claimed.

The Examiner asserts that the addition of nitrogen reduces surface roughness. However, the Examiner's assertion is not entirely correct. That is, Ikezawa sets forth nitrogen concentration in the surface as promoting corrosion resistance. See, for example, Ikezawa at: col. 2, lines 40-42 (second object is corrosion resistance); col. 2, lines 53-58 (second object obtained by nitrogen contained in the surface); col. 3, lines 8-16 (nitrogen contained in the surface prevents pitting even when the bearing is used in corrosive environment), see also col. 6, lines 52-60; col. 8, lines 27-41 (samples 1-3 had no surface treatment so surface roughness was not good, but had surface nitrogen concentration high enough that pitting and flaking did not occur—i.e., surface roughness is separate consideration from nitrogen concentration); col. 10, lines 59-65 (surface roughness is acceptable, but nitrogen concentration is low—i.e., again, surface roughness is a separate consideration from nitrogen concentration).

Second, the Examiner's interpretation of Wan is unreasonable. Specifically, the Examiner asserts that the inner and outer races of the bearing are part of the cage pocket.<sup>1</sup> However, this is a distorted interpretation of a cage pocket, and is completely contradictory to the manner in which a cage pocket would be understood by one of ordinary skill in the art.

Instead, the term "cage" means a retainer which retains rolling elements, and does not include inner or outer race as asserted by the Examiner. Typically, at least a portion of the cage

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<sup>1</sup> February 6, 2006 Office Action at page 3, item 3, 2<sup>nd</sup> paragraph.

is disposed between the inner and outer rings of the bearing, and holds the rolling elements in a spaced relation along the raceways. This definition of a cage is consistent with that set forth in US Patent 5,669,719 to Kino (made of record in an IDS filed on December 9, 2003). As shown in Fig. 1-4, Kino discloses that the cage 9a includes cage pockets 10a, wherein these elements (cage and pockets) are separate from the inner race 5a and outer race 7a. And it is the inner race 5a and outer race 7a that respectively include the inner raceway 4a and outer raceway 6a contacting the rolling elements 14 under load. Furthermore in Wan itself, column 5, lines 50-55, he explains that reference 7 in Fig. 6 denotes cage, and references 11 and 13 denote parts of a cage pocket. Separately, Wan describes the inner our outer race as denoted by references 5 and 7 respectively. That is, the inner our outer races **are not** described as part of the cage pocket, nor would they be understood to be by one of ordinary skill in the art.

Thus, Wan does not teach or suggest “at least a first one of the inner ring race, the outer ring race and the rolling surface, comprises a first portion with a formed film made of a manganese phosphate” as set forth in clam 1. Instead, Wan’s film is disposed on the cage pocket of the retainer ring. Similarly, Wan fails to teach or suggest “at least one of the inner ring race, the outer ring race, and the rolling surface, comprises a first portion which is comprising a smoothed formed film made of a manganese phosphate”, as set forth in claim 6. Again, Wan’s film is disposed on the cage pocket, which does not include the inner and outer raceways. And Ikezawa does not cure these deficiencies in Wan.

Moreover, in fact, Wan actually teaches away from the use of a manganese phosphate film. Specifically, Wan describes that such a manganese phosphate coating is “**not** satisfactory for several reasons.”<sup>2</sup> Instead, Wan’s invention resides in the use of a disulphide or diselenide of a Group V or VII transition metal instead of a manganese phosphate film.<sup>3</sup> Although Group V includes manganese, a diselenide or disulphide is not the same as a phosphate.

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<sup>2</sup> Wan at col. 1, lines 23-41 (emphasis added).

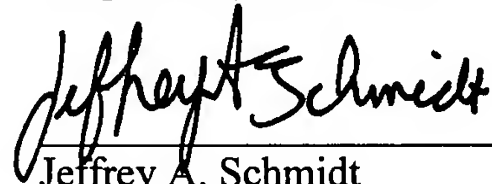
<sup>3</sup> Wan at col. 1, lines 59-67.

Accordingly, the references fail to teach or suggest a manganese phosphate film as set forth and arranged in the claims. Therefore, each one of claims 1 and 6 has unobviousness over Wan in view of Ikezawa. Likewise, dependent claims 2-5 and 7-12 are not rendered obvious by Wan and Ikezawa.

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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